APPLIED TROPHOLOGY, VOLUME 18

Applied Trophology, Vol. 18, No. 2 (Second Quarter 1975)

Food and Earth

Contents in this issue:

- "Food and Earth."

The following is a transcription of the Second Quarter 1975 issue of Dr. Royal Lee's *Applied Trophology* newsletter, originally published by Standard Process Laboratories.

Food and Earth

This quarter of the year with its recently designated "Food Day" and its previously known "Earth Week" seems nutritionally very important to us as all-natural food comes from the earth. Therefore, we will confine our subject matter to food and earth and the relevancy of both in the prolongation of health through natural foods, with as little nutritional loss as possible through unecological production or contamination in processing.

Food Day Problems

The concern is world hunger, food quality, prices, and nutrition, but mostly malnutrition here at home.

Joan D. Gussow, M.Ed., an instructor in nutrition at Columbia University's Teachers College, has deplored the lack of up-to-date data on what Americans eat and on the quality of the American diet.

Mrs. Helen Nelson, one of the thirty-six-members of the Food Day national advisory board, called Food Day a sharp change from the traditional expression of "eating off the fat of the land." She said: "Now instead we are confronted with the need to eat lower on the food chain." She also noted: "Food is one of our traditional measures of enjoyment, comfort and *well-being*." (Emphasis ours.)

Education Necessary

Dr. Philip L. White of the AMA council on foods and nutrition has observed that most families have no more than three or four sit-down meals together a week. The rest of the time they are on a "helter-skelter, do-the-best-you-can schedule." He said: "I feel very strongly that children's diets should be under the supervision and encouragement of their parents, but we have become what I call a 'snack society.'" To him, malnutrition includes the consumption of too many calories with the resultant problem of overweight. He also advises: "We definitely need better nutritional programs."

The so-called nonprofit Nutrition Foundation, generally criticized by nutritionists and consumers alike, has a heavy representation of members from the food industry. They tend to promote the idea that we are one of the best-fed nations in the world despite the ever-increasing incidence of deficiency diseases, only a half-well population, and our continually poor rating on the World Health Chart.

Obviously, we must develop nutritional educational programs for consumers, including nutrition education throughout the school system. The children of our country, the future mothers and fathers, are apparently not receiving the proper nutrition for a healthy body. Their progeny will, no doubt, continue to carry on with our present array of deficiency diseases, with the possibility of newly added ones.

On Food Day, Lois Blinkhorn, of the *Milwaukee Journal* staff, described the way the teenage food scene appeared to her with this poem:

> *Mary, Mary quite contrary,*
> *How do your children grow?*
> *On snacks and sweets and processed treats*
> *And soft drinks all in a row.*

Elizabeth Mertens, of the Milwaukee Health Department, stated: "If people didn't buy junk foods, they would disappear from the market. It gets back to where we always end up—education."

Nutritionists generally agree that this is an immediate necessary step to fight malnutrition, not only among the disadvantaged, but even among the affluent in this leading convenience-food-producing nation. We must have more education to spot false nutritional advertising of deficient foods on the market.

School Snack Food Service

In some schools vending machines are very nearly the whole lunch program. Many nutritionists are greatly disturbed at the rapidity of this apparent take-over. Charlotte Guiliani, a school foods service director, said:

> "They're dispensing junk foods, and, as far as I'm concerned, they should not be available to kids. And they especially shouldn't be in the schools. You give a child money and the choice of a hot lunch, hot dogs, potato chips and Coke, and he'll take the potato chips every time."

It has often been said: "The packaging is more costly and possibly just as nutritious as the product inside." Sandra Long, a therapeutic dietician at Milwaukee Children's Hospital, said:

> "I'm really worried about the kids. Most of what you get out of the machines is all carbohydrates. They're used up so fast and you are hungry again so you buy more junk. They make empty calories just that much more available. You're paying a big price and getting a lemon as far as nutrition is concerned."

The Center for Science in the Public Interest recently presented an award to Jean Farmer for her contribution toward improving the quality of the American diet. She had spent two years trying to get junk foods out of the school vending machines in Bloomington, Indiana. Thanks to her perseverance, the junk foods have been replaced by more nutritional foods. Junk foods in Bloomington schools have been banned by the school board. Its president stated: "We will not provide a facility for private enterprise to come in and sell foods which are not nutritionally valuable and make a profit on our school children."

Snacks Now Big Business

Vending machines now occupy space in various convenient areas throughout many factory and office buildings. In fact, many factory cafeterias are being closed because the vendors are more readily accessible. Vending machines have, in the past ten years, grown into a 5-billion-dollar business. For example, one industrial plant has 32 coffee, 36 soft drink, 28 milk, 15 candy, 11 pastry, 21 candy *and* pastry, and 6 food and ice cream machines. Each month they dispense 177,000 cups of coffee, 50,000 cups of soda, 30,000 units of ice cream, 2,500 cartons of milk, and 15,000 pastries.

These machines and the fast-service chain restaurants cater to individuals who are mostly in a rush, don't eat regularly at home, and are willing to pay more for convenience. These fast-eatery places are also big business, as they now serve over 10-billion dollars' worth of meals a year. However, they also leave much to be desired from a nutritional standpoint.

According to a late issue of *Consumer Reports*, a typical meal from a fast-food chain restaurant provides adequate protein but is heavy on calories and deficient in at least a few essential nutrients. A meal was judged deficient in a nutrient if it failed to provide one third of the Recommended Daily Allowance established by the National Academy of Sciences—National Research Council. *Consumer Reports* says:

> "People who eat regularly at fast-food chains should make sure their other meals include beans, dark leafy green and yellow vegetables and a variety of fresh fruits."

In this respect Dr. Mary McCann, Professor of Nutrition at Boston University, says: "The closer any diet gets to hamburger, french fries and milk shake, the worse it gets." She also said:

> "Some ethnic diets featuring vegetables, fruit and seafood would improve the health of many Americans. The Oriental diets contain a lot of vegetables that aren't over-cooked and retain much of their healthful nature."

Dr. D. Mark Hegsted of Harvard laments the rapidly absorbed "junk food" diet consisting mostly of refined carbohydrates instead of a dietary natural balance of carbohydrates, proteins, fats, minerals, and vitamins to promote proper enzymatic metabolism.

Foreign researchers Drs. Vitale and Velez, in a recent nutritional investigation in Heliconia, Colombia, South America, found the usual heavy carbohydrate diet too rapidly absorbed. Although babies were born with normal intelligence, by the time they became teenagers, 35 percent were mentally retarded because of the lack of a proper diet. They observed that the body must obtain several essential amino acids from food in order to manufacture the rest. The doctors measured the levels of essential amino acids in the blood as a test for malnutrition. They, no doubt, reasoned that the complex combinations of amino acids containing carbon, hydrogen, nitrogen, oxygen, and sulphur are essential constituents of all living cells, the so-called building blocks of protein, which is the primary nutrient so necessary for cellular maintenance and growth.

More Food Research Needed

It is quite apparent that we need this type of dietary investigation in our country. With the increasing percentage of retarded children, slow or nonlearners, and juvenile delinquents it is obvious that we need better nutrients in our food—and especially in the foodstuffs of our children—if we desire to continue to be the strong, vital nation our forefathers bequeathed us.

The rising consumption of snack foods, among our adolescents in general and a large percentage of our working people away from home, together with more convenient foods and less complicated meals at home, surely must interfere with the cellular maintenance of their bodies through the loss of essential amino acids. Very often our home-cooked meals account for the loss of two of the most critical essential amino acids, namely lysine and tryptophane, if sugar is present. The small amount of milk sugar (lactose) in milk is sufficient to cause their loss in pasteurizing.

Only recently the National Research Council's Food and Nutrition Board recognized that the American dietary habits, such as an increased reliance on nutritionally deficient snack foods, actually increase our need for essential nutrients. Now, Market Research Corporation has determined that snack foods comprise 28 percent of the average American diet. According to two researchers from Rutgers University, Dr. Paul Lachance and Li -Fang Chem, this situation has become a "major American health problem." They advise that 30 percent of our food dollars now go to fast-food chains and that soon it will zoom to 50 percent. So, *health time* marches on to an ever nearer ending.

However, over twenty years ago, Anna de Planter Bowes, Director of the Bureau of Nutrition, Pennsylvania Department of Health, warned us:

> "Continuing refinement of foods, newer methods of food processing and high intake of refined sugars endanger the adequacy of the B vitamins in the meals of many children. Cumulative data, from all areas of the country, show that much improvement is desirable in both nutritional status and dietary habits. Physically, some of these downward tendencies can be concealed for months, years or decades."

She observed that a complete reversal of dietary habits has often been found beneficial and had, over a period of time, improved health. Dr. Tom Brewer of the Nutrition Action Group (NAG) has said:

> "Foods that don't give you and your baby the proteins, vitamins and minerals you need are boxed cereals, lunch meats, white bread, potato chips, soft drinks, candy, commercial cakes, cookies and french fries. Their chief purpose is to make money, not make you healthy."

We are living today in a self-imposed nutritional experiment in which the general diet is being changed in a manner that has no precedent in history. The results of these changes may not become generally evident for more decades to come. But we do know that nutritional currents run deeper than generally presumed, so our present observations of dietary deficiency in heart and vascular disease, cancer, diabetes, arthritis and numerous child maladies may just be the warning ripples on the surface water. Perhaps our controlled researchers must delve deeper to get the facts from the ground up.

Modern vs. Organic Agriculture

Congressman E. Mezvinsky of Iowa believed revising farmers' markets across the nation would also encourage a better family dietary and would act as an antidote to high consumer prices. He asked USDA Secretary Earl Butz to study possible benefits, both to the farmer with limited land and to the consumer.

We again quote Mrs. Joan Gussow from her article "The Organic Alternative," a forward-looking article in *Nutrition Today*, March/April, 1974. She says:

> "As nutrition professionals, we have long been taught to view organic agriculture and the food it produces as one of the more extreme of the 'fads' with which we must regularly contend. Though many people in nutrition find it surprising, the fact is that a growing number of thoughtful people concerned with ecology, agriculture and the world food supply, support, or at least take seriously, the experiments being conducted by organic agriculturists."

Worldwide current agricultural methods, as imposed by the so-called chemical "green revolution," now curtailed by the energy shortage, have perhaps condemned some of the developing countries to possible mass starvation. In this respect, the well-known British economist Barbara Ward advises:

> "Building up a sustainable agricultural capacity requires labor-intensive technology…farming practices which use decentralized forms of energy such as solar power; fertilizer practices which carefully use all organic wastes; weeding and insect controls which accept the availability of labor."

Apparently, more scientific people now realize that the NPK formula fertilizers are on the way out. Some are of the opinion that the entire chemical binge has seen its best days; at least, nutritionists believe we must go organic to regain lost health. The fertility of the earth must be preserved for posterity.

Nutrition vs. Chemistry

Farmers have been bailing out and rescuing chemistry since the end of World War I, when Western industry confiscated the remaining German chemical surplus and decided it could best be exploited as synthetic fertilizer. The NPK formula erroneously based on the combined theories of Baron Justus Von Liebig and French chemist J.B. Boussingault seemed to best fit their purpose, considering the material on hand. In his published work, *Natural Laws of Husbandry*, Von Liebig said: "Not the fertility of the earth, but the duration of that fertility, lies within the power of the human will."

Unlike many modern scientists and Boussingault, he recognized the injurious effects of excessive nitrogen (N) in the soil, which at that time was in the form of stable manure, guano, and nitrates. However, he did believe that a liberal amount of potash, or Kalium (K), and phosphoric acid (P) was essential for plant growth. He arrived at this conclusion from *his analysis of seed grain only*, without any consideration of nutrients needed for the stems and leaves of the plant, namely, calcium (lime), iron, magnesium, silica, manganese, copper, zinc, and possibly other strength-sustaining minerals, depending on the specific geographic area. Otherwise, his nutritional observations are as pertinent now as they were then. We quote:

> "It may seem to the superficial observer that nations, like men, pass from youth to age, and then die. But if we look at the matter a little more closely, we shall find that as the elements for the continuance of the human race which nature has placed in the soil are very limited and readily exhausted, the nations that have disappeared from the earth have dug their own graves by not knowing how to preserve and renew these materials. Nations (like China and Japan) which know how to preserve the fertility of their soils have not died out."

Boussingault's error was that he believed plants absorbed all nitrogen from the soil. It was based on his experiment of growing plants under a glass globe with an ingenious system of tubes to supply water, carbonic acid, and nitrogen from the air. The air containing nitrogen was passed through sulfuric acid, so as to free it from any ammonia it contained. An analysis of the matured plants grown under these conditions showed that the contained nitrogen was exactly the same as that in the seeds from which they were grown. Therefore, Boussingault claimed this as absolute proof that plants cannot absorb nitrogen from the air to form plant protoplasm but must draw all needed nitrogen from the soil. His error was in the fact that the growing plants inside the globe released so much oxygen that the atmospheric nitrogen was prevented from entering the globe.

The sap of trees and plants tested contained mineral foods, with the healthiest having a slightly larger amount of calcium, magnesium, and iron. It was for this reason that some soil biologists believed that Dutch Elm disease was more or less aggravated by soil mineral imbalance. Their opinion possibly should not have been ignored, as chemical and spray method has apparently been a waste of time and taxpayers' money.

Sadly, our stately elms have generally been sacrificed. Excess nitrogen in the soil has often been the unequalizer by causing insoluble salt formation with some of the minerals. The created imbalance promotes sickly plants with stems that are soft, have thin-walled cell structure, no stamina, and are generally subject to attack by fungi and/or insect pests. Experiments have shown that insects cannot propagate to any great extent on plant stalks and leaves rich in iron, lime, magnesium, silica, and other minerals in balance. So the free use of nitrogen fertilizer not only is useless and expensive but is also harmful to plants and animals, including man, as we are all dependent on earthly soil for sustenance. Nationally, we are finally beginning to realize that strong healthy bodies need whole food grown on fertile soil containing all the necessary elements to grow strong healthy plants.

Error Breeds Error

Plants and trees often suffer from a deficiency or an excess of certain elements in the soil too often not corrected by commercial chemical fertilizers. More often they tend to create a greater imbalance and a lower protein value. The resulting imbalance contributes to a less nutritive crop, lowered stability of the plant cell substance (protoplasm), susceptibility to rapid disintegration and finally, as a sick plant, an attack by insect pests or fungi. Then, too, in addition to the upset carbon-nitrogen balance due to fertilization, the hydrocarbons of various pesticides pollute the soil humus, which serves as a sponge for water and air and also as a home for the microorganisms whose life cycle contributes to the production of a higher quality protein product. So, conversely, the loss of live soil must contribute to lowered protein value products.

After years of modern chemical farming, tests reveal that the organic matter in soils in some areas only rates between 1½ percent and 3 percent protein. This is a terrific nutritional loss, as biological science has determined than an ounce of fertile soil may normally contain more living organisms than the human population of the entire world. The natural resilient porosity of the humus has, in many instances, given way to a hardpan-base soil contributing little to nutrition. Because of the loss of its spongelike effect, it contributes to flooding. Despite all precautions, flooding seems to increase each year. We must also remember that nutrient uptake is a work-requiring process and must be driven by the root's oxygen-dependent energetic metabolism. Humus is much more than a store of nutrients; it is also the chief source of the soil's porosity, hence of its oxygen content, and therefore of the efficiency with which nutrients are taken up by the crop.

Dr. William A. Albrecht et al., Missouri agrobiologists, found that microorganisms in the soil are inextricably linked with production of the living cellular substance upon which the vital functions of nutrition, growth, motility, secretion, and reproduction of life depend. The cycle of life actually is the travel of cellular protoplasm as it leaves the soil microorganism, enters plant life above the soil, and returns back to the soil humus, again as a part of the bank of fertility. As we eat the plants or the animals that ate the plant, we also become a part of that cycle. Depending on the plant source it could be a healthy cycle or, as many people have now found out, only half-healthy.

As we were warned years ago by Andre Voisin, "Soil science is the foundation of preventive medicine, the medicine of tomorrow."

Yet few doctors give their patients information about the food they eat, the reason probably being that only a few medical schools possess departments of nutrition. This is astonishing when we are told that the majority of veterinary colleges do have a department of nutrition. Perhaps it is this omission that has led doctors, dentists, and dieticians to regard foods as assembled compounds rather than balanced nutrients. We cite cow's milk, for instance, as it contains twice the protein content of mother's milk, yet it provides less utilizable nourishment and the infant finds it more difficult to digest.

Professor R. Lindsay Robb wrote: "Since the basic function of medicine is also to promote health, there should be the closest cooperation with agriculture."

No doubt the organic agriculturist could teach the doctor and dentist much more concerning the role played by trace minerals in nutrition. Recently, the *Lancet* is reported to have implied that the average physician does not possess any real understanding of the behavior of the mineral elements in the diet.

Also, our so-called old-fashioned farmer must teach our modern farmers how to resurrect and reanimate their lifeless soil after at least a part of some five decades of lost soil elements. Because of the energy crisis this appears to be the necessary objective, as most limited acreage farmers now only hold an empty fertilizer bag. Nutrition-minded soil ecologists favor this objective, as they believe our present health woes are due, at least in part, to soil mining and present processing methods. The average processor pays little attention to the nutritional value of his products.

Profits vs. Conservation

In speaking of mining, we are reminded of the pastoral letter of twenty-five Catholic bishops in regard to "powerlessness in Appalachia" and criticizing the idolatry of "maximization of profits." The letter states:

> "Without judging anyone, it has become clear to us that the present economic order does not care for its people. In fact, profit and people frequently are contradictory. 'Maximization of profit' in today's world has become a crazy death wish, every day using up more and more of the earth's riches and our own dignity."

We have only quoted the letter in part, although it also refers to air and water pollution and the destruction of arable land as a result of mining. No doubt the content of this letter could also apply to the Duluth area. Apparently, we are living in an arbitrary commercial age. Little attention is given to the overall ecological status. The small farmer, formerly the backbone of the nation, is being forced off the farm at the rate of 26,000 farms per year. The thousands-of-acres conglomerates have taken over much of this land and are, at least temporarily, able to show a higher yield for less money and with an increased profit per acre. Here also the emphasis has been placed on volume rather than nutritional value, and again we are sacrificing better nutrition and health for greater profits.

The organic farmer, however, steers clear of mono-crop farming because from experience he knows it cheats the soil. In this regard Dr. Albrecht noted:

> "We can see what soil erosion has done to our land, but we fail to appreciate what soil depletion has done… the advent of the machine has made foods a market commodity and farming a business. We do not seem to realize that our stewardship of the land calls for the return of that which we have borrowed."

Similarly, while serving as Secretary of the Interior, Rogers C.B. Morton had this to say about *our earth* (emphasis ours):

> "For the foreseeable future, everything we have or hope to have in this world is going to have to come from the crust of the earth, from the seas and the seabed, and from the envelope of our atmosphere. This planet is the only one we've got. It is our supplier, our storehouse, our waste disposal system, the only thing we have to stand on and even our final resting place. *We had better learn to use it wisely.*"

This entry was posted in Applied Trophology, Volume 18. Bookmark the permalink.

Applied Trophology, Vol. 17, No. 4 (Fourth Quarter 1974)

Applied Trophology, Vol. 18, No. 3 (Third Quarter 1975)

Leave a Reply

You must be logged in to post a comment.

Connect with:

Secured by OneAll Social Login

HISTORICAL ARCHIVE SEARCH

Search For...

GO!!

YOUR CART

FEATURED ARCHIVE SUBJECTS

- Lee Foundation for Nutritional Research
- acid-alkaline balance
- digestive health
- heart disease
- low-carb diet
- prenatal nutrition
- processed foods and disease
- raw foods
- soil health and nutrition

RECENT POSTS

Good to Know: Understanding Standard Process Combination Products
22 hours ago

Happy Thanksgiving from SRP!
1 week ago

Dr. Dority on the 33 Royal Principles of Health: #29. Interference with Transmission of Innate Forces
2 weeks ago

Why Phyllis Quinn's Slow Cook Gourmet Is an SRP Fave
3 weeks ago

Dr. Dority on the 33 Royal Principles of Health: #28. The Conductors of Innate Forces
4 weeks ago

Easy Liver Paté for All (with GAPS Stages)!
1 month ago

CONTACT US

+1 (866) 407-9323
+1 (970) 461-4602
5740 Boeing Drive, Loveland, CO, 80538
P.O. Box 270091, Fort Collins, CO, 80527
info@seleneriverpress.com
Guest Blog Post Submission Form

PRODUCT SEARCH

Search for...

GO!

YOUR CART

Good to Know: Understanding Standard Process Combination Products
22 hours ago

Happy Thanksgiving from SRP!
1 week ago

Dr. Dority on the 33 Royal Principles of Health: #29. Interference with Transmission of Innate Forces
2 weeks ago

Why Phyllis Quinn's Slow Cook Gourmet Is an SRP Fave
3 weeks ago

Search Historical Archives...

SEARCH

FEATURED ARCHIVE SUBJECTS

- Lee Foundation for Nutritional Research
- acid-alkaline balance
- digestive health
- heart disease
- low-carb diet
- prenatal nutrition
- processed foods and disease
- raw foods
- soil health and nutrition

ABOUT SELENE RIVER PRESS

Selene River Press is a publishing company specializing in holistic nutrition education. Our philosophy is rooted in the work of Dr. Royal Lee, who showed that vitamin deficiencies, due to processed foods, are responsible for most degenerative disease. From organic farming to food-based vitamins, from raw milk to fermented foods, Dr. Lee set the course for the field of whole food nutrition.

CONTACT US

Toll Free: +1 (866) 407-9323
Local: +1 (970) 461-4602
PO Box 270091, Fort Collins, CO, 80527
info@seleneriverpress.com
Guest Blog Post Submission Form

VISA MasterCard AMERICAN EXPRESS DISCOVER PayPal